

North Fork Holston River Mercury TMDL Public Meeting

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Overview

- Department of Environmental Quality
 1. Conducts Water Sampling
 2. Assess the data by comparing it to standards
 3. Problem (**Impaired**) waters are listed
In an EPA report called the 303(d)
Total Maximum Daily Load (TMDL) List

TMDL required by State and Federal Law

Total Maximum Daily Loads are Mandated by Law

- Federal 1972 Clean Water Act requires
 - **Water Quality Monitoring**
 - **Periodic Assessment and Impaired Waters Listing**
 - **Develop TMDLs for Impaired Waters**
- Virginia's 1997 Water Quality Monitoring Information and Restoration Act (WQMIRA) requires
 - **TMDLs for Impaired Waters**
 - **An Implementation Plan**
- 1999 Consent Decree with EPA to develop TMDL Reports for all 1998 listed streams by 2010

Designated Uses

Recreation (swimming and boating)

Aquatic Life

balanced, indigenous including game fish



Wildlife

Edible natural resources

Fish

Shellfish (on the coast)



What are Water Quality Standards?

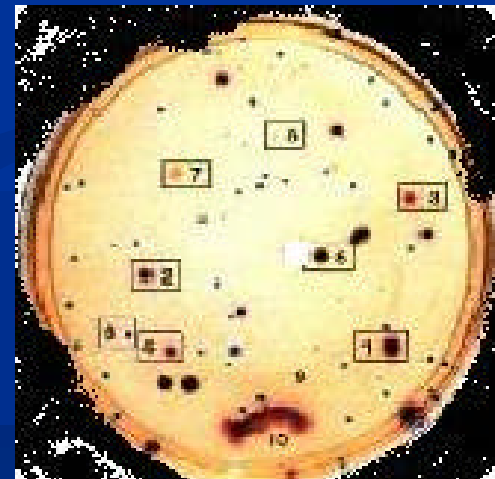
- **Numeric or Narrative** Limits designed to protect designated uses

- **Recreational use**: measured by the number of colony forming units of bacteria in the water
- **Aquatic life use**: measured by the numbers and varieties of aquatic organisms that live in our streams
- **Fish Consumption Use**
Mercury

Fish tissue = 0.3 ppm

PCBs = Polychlorinated Biphenyls

Fish tissue = 50 ppb



North Fork Holston River: Why Are We Here?

Three Separate Problems

#1 Aquatic Life



The condition of the stream is harmful/deadly to aquatic life.

TMDL for chloride was completed in 2006

#2 Bacteria



Bacteria levels are excessive.

TMDL scheduled for 2018

#3 Fish



Consumption

Mercury and PCBs in Fish Tissue

Mercury TMDL 2010

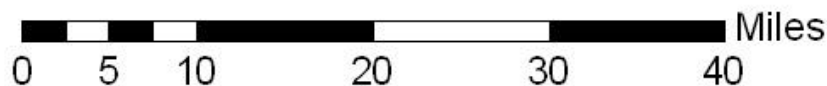
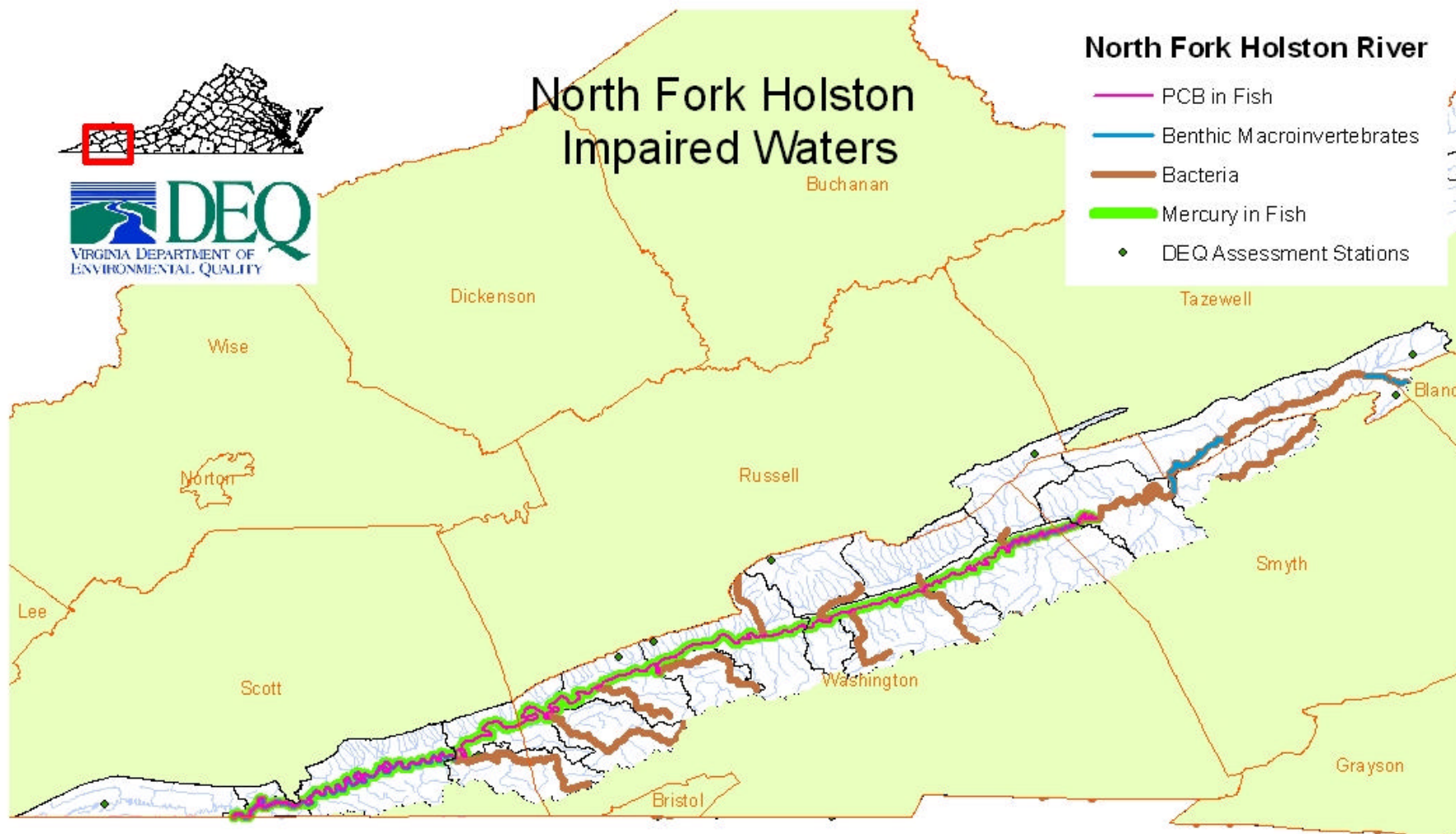
PCB TMDL scheduled 2018



North Fork Holston River Impaired Waters

North Fork Holston River

- PCB in Fish
- Benthic Macroinvertebrates
- Bacteria
- Mercury in Fish
- DEQ Assessment Stations



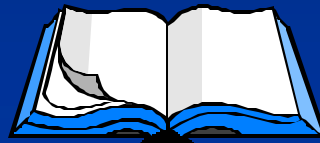
What is a TMDL or Total Maximum Daily Load?

- Amount of a pollutant that a waterbody can receive and still meet water quality standards
- It is pollutant specific
 - Aquatic Life Stressors
 - Bacteria
- It is a process to restore impaired waters
- A special study that:
 - Identifies all significant pollution sources,
 - Calculates amount of pollution from each source, and
 - Calculates pollution reductions, by source, needed to attain water quality standards.

What Next?

We Are Here

Implementation Plan



Total
Maximum
Daily
Load



- Identifies permit controls, best management practices, or remediation options needed to make necessary pollutant reductions

Polluted

- Calculates amounts from each source
- Tracks pollutants in the system
- Sets maximum pollutant load
- Estimates necessary pollutant reductions

Implementation



Clean

Water quality
standards met

The Process

Water quality
standards not met



What are the Steps in the TMDL Process?

1. Public notice for TMDL development
 2. TMDL Study with Public Meeting - Monitoring and Modeling the Watershed
 3. Public notice for Draft TMDL
 - Public Meeting with 30-day comment period
 4. Submit to EPA for approval
 5. State Water Control Board adoption of TMDL
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6. TMDL Implementation Plan
 7. Implementation of Corrective Actions Prescribed by Implementation Plan
 8. Further Monitoring to Measure Success

Public Meetings

- **November 4, 2008** - Friend's Community Church, Saltville, VA
- **November 6, 2008** – Hilton Elementary School,
Hiltons, VA
- **January 25, 2010** - Friend's Community Church, Saltville, VA
- **January 26, 2010** – Hilton Elementary School, Hiltons, VA 6PM

Thank You !



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